



Oral presentations at Nanosafe 2008

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■ Conference opening

- "Safe Nanotechnology EC Industrial Research" Georgios Katalagarianakis (European Commission)
- "Nanosafe" Frédéric Schuster (Coordinator of NANOSAFE2, France)

■ Session 1: Exposure issues

- "Exposure to nanoparticles: Importance, knowledge and needs" Rob Aitken (Institute of Occupational Medicine, UK)
- "Characterization and monitoring of biological doses from inhalation exposure to nano and fine particles in industrial workplace" Christos Housiadas ("Demokritos" National Centre for Scientific Research, Greece)
- "Use of an electrical aerosol detector (EAD) to measure nanoparticles depositions on different regions of the respiratory tract of packaging workers in a carbon black manufacturing industry" Ying Fang Wang (National Cheng Kung University, Taiwan)
- "From measurements towards estimates of exposure: development of a strategy to assess exposure to manufactured nanoparticles; preliminary results of the NANOSH-project" Derk Brouwer (TNO Quality of Life, The Netherlands)

■ Session 2: Characterization, Detection and Monitoring

- "Environmental, health and safety studies of nanoparticles" David Y. H. Pui (University of Minnesota, U.S.A)
- "On the performance of a calibrated nanoparticle generator" Ulrika Backman (VTT Technical Research Centre of Finland, Finland)
- "Manufactured nanoparticle detection using LIBS" Christophe Dutouquet (INERIS, France)
- Monitor for detecting and assessing exposure to airborne nanoparticles" Johan Marra (Philips Research Laboratories, The Netherlands)
- "Selective detection nanoparticles by elemental analysis" Luana Golanski (CEA, France)
- "Experimental study of the response functions of direct - reading instruments measuring surface - area concentration of airborne nanostructured particles" Sébastien Bau (INRS, France)
- "Electrical nanoparticle monitor with non-collecting operating principle" Kauko Janka (Dekati Ltd, Finland)
- "Photoluminescent Silicon nano particles for biological applications: passivation and functionalization" Julien Vincent (CEA, France)
- "From nanoparticles to large aerosols: Ultrafast measurement methods for size and concentration" Jürgen Spielvogel (Grimm Aerosol Technik GmbH, Germany)
- "Environmental parameters that control the fate of C60 fullerenes in aquatic system" Jérôme Labille (CEREGE, France)
- "Characterisation of nanoparticle size and state prior to nanotoxicological studies" Patrick Hole (NanoSight Limited, UK)
- "Lung toxicity determination by in vitro exposure at the air liquid interface with an integrated online dose measurement" Sonja Mülhopt (Forschungszentrum Karlsruhe GmbH, Germany)
- "Using inductively coupled plasma mass spectrometry (ICP - MS) to determine the fate of inorganic nanoparticles" Silvia Angeloni (CSEM, Switzerland)
- "New sampling technique and characterization of nanoparticles in liquids" Monica Ratoi (University of Oxford, UK)

■ Session 3: Nanomaterials life cycle

- "Life cycle of airborne nanoparticles and its implications for filtration and personal protection devices" Gerhard Kasper (University of Karlsruhe, Germany)
- "Measurement of nanoparticle removal by abrasion" Luana Golanski (CEA, France)
- "Labelling of nanoparticles by nanotracers and oligonucleotides" Francois Tardif (CEA, France)

■ Session 4: Toxicology

- "Nanotoxicology: What we have learned from toxicological studies of manufactured nanomaterials" Yuliang Zhao (Lab for Biomedical Effects of Nanomaterials and Nanosafety, China)
- "Integration of a microfluidic device to test the toxicity of nanoparticles" Abhay Andar (University of Glasgow, UK)
- "Dosimetry of mono-disperse silica nanoparticles in cytotoxicity assays" Peter H.M. Hoet (KULeuven, Belgium)
- "PBPK models to assess nanoparticles kinetics and distribution in humans and rats" Alexandre R.R. Péry (INERIS, France)
- "Nanotoxicology studies within the "Nanoscience" CEA program" Marie Carrière (CEA, France)
- "Comparative cytotoxicity of 27 manufactured nanomaterials in human alveolar epithelial and macrophage cell lines" Sophie Lanone (INSERM, France)
- "TiO₂, SiC nanoparticles and multi-walled carbon nanotubes cyto- and genotoxicity" Marie Carrière (CEA, France)
- "Analysis of the toxicity of nanoparticles on the immune system using their capacity to perturb dendritic cells functions" Christian L. Villiers (INSERM, France)
- "Multi walled carbon nanotubes can be eliminated by the lung: Proposition of hypothetical clearance mechanism" Dan Elgrabli (INERIS, France)
- "Biokinetics and effects of titania nanomaterial after inhalation and i.v. injection" Robert Landsiedel (BASF, Germany)
- "Nanotoxic: Toxicological assessment of manufactured nanomaterials using in vitro and vivo models" Christelle Saout (University of Namur, Belgium)
- "Study of the composite nanopowders dispersion in the vital organs of mice" Alice Tofan (University Dunarea de Jos of Galati, Romania)
- "Acute toxicity of quantum dots in mice: importance of surface charge" Jorina Geys (KULeuven, Belgium)

■ Session 5: Commercial equipments related to safe production and use of nanomaterials

- "Nanosight: Systems For characterisation of nanoparticle dispersions" Patrick Hole (NanoSight Ltd., UK)
- "The first solution for nanoparticles handling designed by Faure Ingénierie: Description of the PSPN (Poste de Sécurité pour Particules Nanostructurées)" Pierre Bombardier (Faure Ingénierie S.A., France)
- "CORDOUAN Technologies: Solutions for particle size measurements in dispersion: the DL135" Benoît Maxit (CORDOUAN Technologies, France)
- "TSI: Measurement, monitoring and exposure assessment of nanoparticles" Eric Filimundi (TSI France Inc., France)
- "Sperian Protection Clothing" Olivier Gougeon (Sperian Protection Clothing, France)
- "Grimm Aerosol Technik GmbH, ECOMESURE: New methods and standards for fine dust monitoring" Jürgen Spielvogel (Grimm Aerosol Technik GmbH, Germany)
- "Monitoring of airborne nano particles at industrial workplaces by means of a portable device will enable strategies to reduce exposure levels and improve the health and safety of workers" Willem van den Brink (Philips Aerasense, The Netherlands)

■ Session 6: Personal protection and secure industrial production

- "Stargate Sherbrooke: an example of a safe nanofactory" François Gitzhofer (University of Sherbrooke, Canada)
- "Experimental evaluation of individual protection devices against different types of nanoaerosols: graphite, TiO₂ and Pt" Luana Golanski (CEA, France)
- "Lessons learnt over 30 years of air filtration in the nuclear industry" Jacques Vendel (IRSN, France)
- "Elaboration of nanophased materials in supercritical CO₂: the MATCOS facility. Safety issues and scientific challenges" Frédéric Charton (CEA, France)

- ▣ "Liquid recovery of TiO₂ nanoparticles synthesized by laser pyrolysis" Benoit Guizard (CEA, France)
- ▣ "Spray drying for processing of nanomaterials" Jesper Sæderup Lindeløv (GEA Niro, Denmark)

■ Session 7: Safety parameters evaluation

- ▣ "Risk of dust explosions of combustible nanomaterials" Ritsu Dobashi (University of Tokyo, Japan)
- ▣ "Material scientific approach to predict nanomaterials risk of adverse health effects" Yasuto Matsui (University of Tokyo, Japan)
- ▣ "Estimation of risks and safety margins for selected nanoparticles in occupational, consumer and environmental settings" Otto Hänninen (Helmholtz Zentrum München, Germany)
- ▣ "Explosion risks from nanomaterials" Jacques Bouillard (INERIS, France)

■ Session 8: Standardization, Regulations and Education

- ▣ "Standardization in support of safe and successful nanotechnologies for all stakeholders" Peter Hatto (IonBond Limited, UK)
- ▣ "NanoSMILE: information and training process at CEA" Hubert Jeanson (INSTN, France)
- ▣ "Current standardisation for nanotechnology" Carsten Möhlmann (BGIA, Germany)
- ▣ "Personal protective equipment against solid particles in nuclear environment" Olivier Gougeon (Sperian Protection Clothing, France)
- ▣ "Guideline for safe handling, use and disposal of nanoparticles" Ghassem Amoabediny (University of Tehran, Iran)

■ Session 9: World trend and strategies for the safe production and use of nanomaterials for the future

- ▣ "Strategy of Québec and Canada: the mission of NanoQuébec" Alain Lacourse (NanoQuébec, Canada)
- ▣ "Managing the health and safety risks of working with nanomaterials in CSIRO laboratories, Australia" Gregory M. Haywood (CSIRO, Australia)
- ▣ "Theme NMP of FP7: Safe Nanotechnology in the Industrial Research policy" Jose-Lorenzo Valles (European Commission)

■ Session 10: Main projects in Europe

- ▣ "The NanoCare project: a German initiative on health aspects of synthetic nanoparticles" Katja Nau (Forschungszentrum Karlsruhe GmbH, Germany)
- ▣ "Development of methodology for alternative testing strategies for the assessment of the toxicological profile of nanoparticles used in medical diagnostics. NanoTEST – EC FP7 project" Maria Dusinska (Norwegian Institute for Air Research, Norway)
- ▣ "SAPHIR Safe NanoManufacturing: Safe, Integrated & controlled production of high-tech multifunctional materials and their recycling" Christophe Goepfert (CILAS, France)
- ▣ "The DIPNA project: a platform for the nanotoxicological investigations" Antonietta Gatti (Università di Modena e Reggio Emilia, Italy)
- ▣ "NANOINTERACT: A rational approach to the interaction between nanoscale materials and living matter?" Iseult Lynch (University College Dublin, Ireland)
- ▣ "NanoImpactNet - European network on the health and environmental impact of nanomaterials" Michael Riediker (Université de Lausanne and Université de Genève, Switzerland)

■ Conclusions

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